

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all previous versions and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently amended) A device, comprising:
a resistor;
a heater disposed proximate to the resistor and capable of raising the temperature of the resistor;
a dielectric disposed between the heater and the resistor; and a tuner electrically coupled to the resistor,
wherein the heater adjusts the resistance of the resistor in response to the tuner,
the resistor, the heater and the dielectric are at least partially disposed within a dielectric material, and
the thermal conductivity of the dielectric is higher than that of the dielectric material.
2. (Original) The device of claim 1, further comprising: a heater driver circuit electrically coupled to the heater and to the tuner, wherein the heater driver circuit supplies a heating current to the heater.
3. (Original) The device of claim 2, wherein: the tuner transmits an output signal to the heater driver circuit when the temperature of the resistor is outside a nominal temperature range.
4. (Original) The device of claim 1, wherein: the resistor, the heater, and the tuner are disposed on a semiconductor wafer.
5. (Canceled)
6. (Canceled)

7. (Currently amended) The device of claim 5, wherein: the dielectric material substantially encases the resistor, the heater and the dielectric.
8. (Currently amended) The device of claim 5, wherein the heater maintains the resistor at an elevated temperature while the resistor is in use.
9. (Currently amended) The device of claim 5, further comprising: one or more conductors extending through the dielectric material and contacting the resistor, wherein the conductors couple the resistor to the tuner.
10. (Original) A semiconductor chip comprising the device recited in claim 1.
11. (Withdrawn) A method of operating a resistor, comprising: providing a resistor; providing a tuner that is electrically coupled to the resistor; detecting a resistance of the resistor; and adjusting the temperature of the resistor when the resistance of the resistor is outside a nominal resistance range.
12. (Withdrawn) The method of claim 11, further comprising: providing a heater capable of raising the temperature of the resistor; and providing a dielectric disposed between the heater and the resistor, wherein adjusting the temperature of the resistor comprises adjusting the temperature of the heater.
13. (Withdrawn) The method of claim 12, further comprising: providing a dielectric material, wherein the resistor, the heater and the dielectric are at least partially disposed within the dielectric material, and wherein the thermal conductivity of the dielectric is higher than that of the dielectric material.
14. (Withdrawn) The method of claim 11, adjusting the temperature of the resistor comprises: passing a DC current through the resistor.

15. (Withdrawn) A method of making a device, comprising: providing a first dielectric material; forming a heater over the first dielectric material; forming a dielectric over the heater; forming a resistor over the dielectric; and electrically coupling the resistor to a tuner, wherein the heater is arranged to adjust the resistance of the resistor in response to the tuner.
16. (Withdrawn) The method of claim 15, further comprising: providing a heater driver circuit; and electrically coupling the heater driver circuit to the heater and to the tuner, wherein the heater driver circuit is arranged to supply a heating current to the heater.
17. (Withdrawn) The method of claim 15, wherein: the resistor, the heater, and the tuner are formed on a semiconductor wafer.
18. (Withdrawn) The method of claim 15, further comprising: at least partially encasing the resistor, the heater and the dielectric within a dielectric material.
19. (Withdrawn) The method of claim 18, wherein: the thermal conductivity of the dielectric is higher than that of the dielectric material.
20. (Withdrawn) The method of claim 15, further comprising: blowing one or more fuses so that a constant heating current flows through the heater.
21. (New) The device of claim 1, wherein the dielectric is Al_2O_3 .
22. (New) The device of claim 1, wherein the dielectric material is at least one polyarylene ether, spin-on methyl silsexquoixane, hydrogen silsexquoixane and silica aerogels.